REMARKS

Introductory Comments

The present application includes claims 21-29 and claims 36-42 wherein claims 21 and 26 are presented in independent form. With this amendment, Applicants have amended claims 21 and 26 and have added claims 36-42 to place the claims in condition for allowance. Claims 1-20 and 30-35 are canceled.

Applicants do not acquiesce in the Examiner's rejections, but instead have elected to make the above-mentioned amendments in an effort to expedite prosecution of this application leading to issuance of a patent. Reconsideration of the application as amended above and in view of the following remarks is earnestly solicited.

Claim Rejections under 35 U.S.C. § 103(a)

Claim 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wentz et al. U.S. Patent No. 3,817,368, Delsanto U.S. Patent No. 5,038,915 or Zeitler U.S. Patent No. 6,629,593

Claims 21 and 26 have been amended. Therefore, Applicants believe that claims 21 and 26 are in condition for allowance. Removal of the rejection and allowance of claims 21 and 26 are respectfully requested. Claims 22-25 and 36-38 either depend from or ultimately depend from claim 21. In that claim 21 is believed to be allowable, claims 22-25 and 36-38 are also believed to be allowable. Claims 27-29 and 39-42 either depend from or ultimately depend from claim 26. In that claim 26 is believed to be allowable, claims 27-29 and 39-42 are also believed to be allowable

The Wentz et al. patent relates to an automatic loading system. Packages are automatically positioned on a loader conveyor of an induction conveyor system by intermittently stopping movement of the loader conveyor while the sorter conveyor continues to move at a constant speed having a fixed ratio to the speed of the loader conveyor during movement. (See column 1, lines 40-46). Movement of the loader conveyor is intermittently stopped under control of an article length and presence recognition means including a photo relay assembly 84. (See column 3, lines 26-30). The spacing between the photo sensors 90 and 92 determines the maximum spacing between packages. The assembly 84 also includes a plurality of length recognition photosensors. (See column 3, lines 39-43).

As can be seen, the Wentz patent describes a system which requires photo sensors to determine the maximum spacing between packages and a plurality of length recognition photosensors to determine the length of the article.

The Delsanto patent relates to a system for feeding articles to a wrapping machine (not shown). A supply belt 10, driven by a motor not shown, carries articles with a speed which is arbitrary, or outside control of the system. At the end of supply belt 10 a flow smoothing belt 12 is placed, driven by an electric motor 14, and at the end of the latter two corrector belts 16 and 18 are arranged, driven by respective electric motors 20, 22, to which an intermediate belt 24 follows, which is mechanically connected with a delivery belt 26 of the wrapping machine.(See column 2, lines 20-33).

At start, the two belts 10 and 26 begin running at the respective speeds set by the respective motor means, which are beyond the scope of the invention. The length of each article will have previously been set in thumbwheel switch 70, and the number of articles per group in selector 68. The ledges 28 will have been arranged at desired distance on belt 26, so that they can accommodate the desired number of articles of chosen length between one another. (See column 3, lines 34-43)

In order to avoid incessant speed fluctuations of the corrector belts, such as would occur in case of a permanent disagreement between the speed of the first corrector belt 16 and the speed of the flow smoothing belt 12, the invention provides that the latter has a speed adjusted to the speed of the downstream belt. To this purpose, PLC 84 controls motor 14 so that it runs at a speed equal to the signal given by tachometer 56 (except for a design constant) multiplied by the number of articles set in selector 68, further multiplied by the length of an article as set in thumbwheel switch 70. (See column 4, line 62 to column 5, line 4)

As can be seen, the Delsanto patent describes a system that requires the length of each article to be set in a thumbwheel switch 70 and the number of articles per group in selector 68. Ledges 28 are arranged to accommodate the desired number of articles of chosen length.

The Zeitler patent relates to a conveyor induct system 20 which comprises two subsystems which can be utilized independently from each other or a combination with each other. One such subsystem is a control point determination module 38 which serves to accurately determine the location of the control points on individual articles, as will be explained in more detail below. The other subsystem of conveyor induct system 20 is a gap control system 40 which controls the speed of one or more of the conveyors in order to create a desired gap between articles as they exit onto a take-away conveyor 32. (See column 4, lines 8-20).

A control point determination module 38 is used to find the location of the control point of each article. It is important to know the control point of an article during the gapping phase of the articles because adjustments in the speed of a conveyor during gapping will be ineffective in changing the speed of the article unless the article is still being controlled by the particular conveyor whose speed is being adjusted. Control point determination module 38 includes a horizontal array of photo-detectors 42 which comprise a first array of photo-emitters 44 and a second set of photo-receptors 46. (See column 5, lines 57-62)

Photo-detector array 42 should give updated information about the entire array of photo-detectors multiple times a second, such as once every two milliseconds, although this update rate can vary widely within the scope of the present invention, particularly with respect to faster update rates. (See column 6, lines 28-33)

The length of photo-detector array 42 is preferably, although not necessarily, at least half as long as the greatest expected article length. (See column 6, lines 43-46)

A gap control system 40 includes a horizontal array of photo-detectors 62 which may be of the same type of photo-detectors as array 42. (See column 9, lines 10-12)

As can be seen, the Zeitler et al. patent describes a control point determination module comprising an array of photo-detectors to determine the control point of an article to provide gapping using an array of photosensors.

For the U.S. Patent and Trademark Office to "establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." Manual of Patent Examining Procedure (M.P.E.P.) Section 2143.

It is well known that when combining the content of various references "there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant." *In re Dance*, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); *In re Raynes*, 28 USPQ2d 1630, 1631 (Fed. Cir. 1993); *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Moreover, the Patent and Trademark Office can satisfy its burden of establishing obviousness "only by showing some *objective* teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teachings of the references." *In re Fine*, 1837 F.2d 1071, 1073, 5 USPQ2d 1596 (Fed. Cir. 1988) (emphasis added) (citations omitted). The Federal Circuit in *In re Fine* stated that a "bald assertion" of substituting an element in a prior art reference would have been within the ordinary skill in the art is insufficient to support a finding of obviousness." *Id.* at 1074.

The Federal Circuit has emphasized the requirement that the prior art must suggest the modifications necessary to achieve the claimed invention. The "mere possibility" that a prior art reference could be modified such that it's use would lead to the particular result recited in a claim does not make that recited in the claim obvious "unless the prior art suggested the desirability of such a modification." *In re Ochia*, 71 F.3d 1565, 1570, 37 USPQ2d 1127 (Fed. Cir. 1995). "Obviousness cannot be established by hindsight combination to produce the claimed invention." *In re Dance*, 48 USPQ2d at 1637; *In re Gorman*, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991).

Independent claim 21 recites a method of controlling placement of at least one product from a first transporter moving at a transport speed having an output region and a second transporter moving at a baseline speed having an input region and an output region. At least one of the output region of the first transporter and input region are monitored for an event corresponding to the detection of the presence or the absence of the first one of the product. The transport speed is controlled according to the baseline speed wherein the transport speed is determined to be greater than, less than or equal to the baseline speed.

In the present case, Applicants believe that there is simply no hint or suggestion in any of the references to modify any one of the references either alone or in combination to achieve Applicants'claimed invention.

In the present case, Applicants believe that there is no suggestion or teaching to modify the apparatus of to achieve Applicants' claimed invention in any of the cited references. For instance the Wentz reference states that the spacing between the photo sensors 90 and 92 determines the maximum spacing between packages. Likewise, the reference to Delsanto describes a system that requires the length of each article to be set in a thumbwheel switch 70 and the number of articles per group in selector 68. Ledges 28 are arranged to accommodate the desired number of articles of chosen length. Lastly, the Zeitler et al. patent describes a control point determination module comprising an array of photo-detectors to determine the control point of an article to provide using an array of photosensors.

Applicants, however in claim 21, recite a transport system that detects for the presence or absence of a product where the transport speed of a first transporter is controlled according to the baseline speed of a second transporter wherein the transport speed may be greater than, less than or equal to the baseline speed. Applicants believe that none of the references, either alone or in combination, disclose Applicants' claimed system. Further, Applicants believe that if any of the references to Wentz, Delsanto and/or Zeitler, either alone or in combination, were modified as suggested by the Examiner, the function of the invention disclosed in the these reference would be destroyed. Consequently, Applicants believe that the proposed modification is not proper and that the rejection under 35 U.S.C. Section 103 is not proper.

With regards to claim 26, Applicants believe that there is no suggestion or teaching to modify the apparatus disclosed in any of the references to Wentz, Delsanto, and/or Zeitler to achieve Applicants' claimed invention. Claim 26 recites a transport control system for controlling the placement of at least one of a plurality of product from a first transporter to a second transporter wherein the first transporter includes an output region and the second transporter includes an input region and an output region. A first sensor is configured to detect the presence or absence of the product within the output region of the first transporter. A second sensor is positioned to detect the presence or absence of the product within the input region of the second transporter. A controller is connected to the first sensor and the second sensor and increases the transport speed above the baseline speed of the second transporter when the first input signal indicates that a first one of the product is not present in the output region of the first transporter.

Applicants believe that none of the references to Wentz, Delsanto, or Zeitler, either alone or in combination, disclose Applicants' claimed system for the reasons previously stated. Further, Applicants believe that if any of the references to Wentz, Delsanto or Zeitler, either alone or in combination, were modified, the function of the invention disclosed in the these references would be destroyed. Consequently, Applicants believe that the proposed modification is not proper and that the rejection under 35 U.S.C. Section 103 to Claim 26 is not proper.

Lastly, Applicants request a clarification of Examiner's remarks in the Office Action. The Examiner has stated that "the relative initial speeds of the first and second belts are immaterial to the operation of the claimed system as long as the first belt is equal or less than the second belt".(See Office Action, page 2, section 2) Applicants are uncertain when the Examiner states "as long as the first belt is equal or less than the second belt" whether the Examiner is referring to the first belt speed being equal to or less than the second belt speed or to something else. Furthermore, Applicants claims do not include a recitation to an "initial" speed and as such Applicant's believe any rejection based on a reference to "initial" speed is improper. Applicant's invite the Examiner to clarify his remarks in view of Applicants uncertainty and in view of Applicants' remarks herein.

Final Remarks

In view of the foregoing, it is respectfully submitted that all of the solicited claims are in condition for allowance. Such action is respectfully requested.

If necessary, applicants request that this response be considered a request for an extension of time appropriate for the response to be timely filed. Applicants request that any required fees needed beyond those submitted with this response be charged to the Deposit Account of Bose McKinney & Evans, Deposit Account No. 02-3223.

The Examiner is invited to contact the undersigned at the telephone number provided below should any question or comment arise during reconsideration of this matter.

Respectfully submitted,
BOSE McKINNEY & EVANS LLP
Daniel J. Krieger
Daniel J. Krieger
Reg. No. 33,600

Indianapolis, Indiana
(317) 684-5251

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